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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,464	12/13/2000	Thorsten Laux	P-4589	9684

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EXAMINER

ZHEN, LI B

ART UNIT	PAPER NUMBER
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2194

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10/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/738,464

Applicant(s)

LAUX, THORSTEN

Examiner

Li B. Zhen

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-8, 10-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8, 10-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-3, 5-8, 10-15 and 17 are pending in the current application.

Response to Arguments

2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-3, 5-8, 10-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,903,890 to Shoji et al. [hereinafter Shoji, previously cited] in view of U.S. Patent No. 6,233,584 to Purcell.**

5. As to claim 11, Shoji teaches the invention substantially as claimed including a system comprising:

a plurality of databases [databases 704 – 706, Fig. 1; col. 4, lines 18 – 35];

a driver for each database in the plurality of databases [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64] thereby forming a plurality of drivers wherein each driver has a substantially identical driver application programming interface [database system of the

present invention comprises a plurality of database drivers which are hierarchically equal. This structure is compatible with the digital cell technology. In this embodiment, the database and interface drivers could be implemented as cells; col. 2, lines 43 – 56]; and

a merging driver coupled to each driver in the plurality of drivers through the driver application programming interface [interface driver 720, Fig. 1; col. 5, lines 39 – 60], wherein the merging driver distributes access operations to each driver in said plurality of drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64] so that the access operations are directed to each of said plurality of databases [user can then click on one of the logic relationships shown in a window 778 to select a search for the results of all the databases; col. 5, lines 45 – 60]. Although Shoji teaches the invention substantially as claimed, Shoji does not specifically teach distributing a single query to each driver so that single query is directed to each of the plurality of databases to search for stored data related to the single query, a merging driver receiving a result from each of the plurality of databases having data available that is responsive to the single access operation, the merging driver generates, automatically without user action, an ordered result comprising retrieving results corresponding to the result offers from said plurality of databases in an order to generate the ordered result.

However, Purcell teaches a plurality of databases [databases 72; col. 5, lines 8 – 29], a merging driver [client software 62; col. 5, line 65 – col. 6, line 15] distributes a single query [universal query; col. 7, lines 35 – 50] to each driver in said plurality of drivers [object/query is submitted to the database 72 via the appropriate database

interface (such as a DB API, Java Database Communication interface (JDBC), etc.); col. 7, lines 15 – 36] so that said single query is directed to each of said plurality of databases to search for stored data related to said single query in each of said plurality of databases [sends this SQL query out over the network 70 via the designated Java socket 68 to all the servers 66 which are 'listening' in to the designated Java/client socket port; col. 5, line 65 – col. 6, line 16]; said merging driver receives a result offer from each of said plurality of databases having data available that is responsive to said single access operation [cap application 74 puts the requested data/resultant into the object which included the query, and returns the object to the cap application 74 (Step 120). The cap application then forwards the object containing the requested data to the client 62; col. 7, lines 35 – 50]; and said merging driver generates, automatically without user action, an ordered result comprising retrieving results corresponding to said result offers from said plurality of databases in an order to generate said ordered result [client 62 extracts the requested data from the object (Step 124), and manipulates the data as necessary in accordance with the users request or the application's needs. The client 62 then updates the record for the query to indicate that the database 72 which sent the object has responded and that the data was found in that database 72; col. 7, lines 36 – 50].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Shoji to incorporate the features of distributing a single query to each driver so that single query is directed to each of the plurality of databases to search for stored data related to the single query, a merging

driver receiving a result from each of the plurality of databases having data available that is responsive to the single access operation, the merging driver generates, automatically without user action, an ordered result comprising retrieving results corresponding to the result offers from said plurality of databases in an order to generate the ordered result. One of ordinary skill in the art would have been motivated to make the combination because this provides a technique by which a single database query may be employed to query multiple non-homogeneous databases [col. 1, line 54 – 57 of Purcell] and provide a database access technique which does not require the requesting user or application to know precise details regarding the location of the database which is being queried [col. 1, lines 57 – 62 of Purcell].

6. As to claim 1, Shoji as modified teaches a method for enabling access of a plurality of databases [databases 704 – 706, Fig. 1; col. 4, lines 18 – 35 of Shoji] by a single access operation [col. 5, lines 45 – 60 of Shoji] wherein each database in the plurality of databases requires a separate driver to access the database so that there is a plurality of separate drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64 of Shoji], the method comprising:

using an API for each driver in the plurality of separate drivers [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64 of Shoji], wherein the API is substantially identical for each of the drivers in the plurality of separate drivers [col. 2, lines 43 – 56 of Shoji]; and

receiving the single access operation by a merging driver [interface driver 720, Fig. 1; col. 5, lines 39 – 60 of Shoji] wherein in response to the single access operation

[user can then click on one of the logic relationships shown in a window 778 to select a search for the results of all the databases; col. 5, lines 45 – 60 of Shoji], the merging driver accesses each driver in the plurality of separate drivers through the API [drivers 712 – 714, Fig. 1; col. 4, lines 47 – 64 of Shoji]; and

accessing an associated database in said plurality of databases [col. 4, lines 18 – 35 of Shoji] by said each driver [col. 4, lines 47 – 64 of Shoji] in response to said merging driver [interface driver 720, Fig. 1; col. 5, lines 44 – 60 of Shoji] access through said API [col. 5, lines 45 – 60 of Shoji];

wherein said single access operation enabled access of said plurality of databases [databases 72; col. 5, lines 8 – 29 of Purcell]; and

said single access operation is performed for each of said plurality of databases to search for stored data related to said single access operation in each of said plurality of databases [sends this SQL query out over the network 70 via the designated Java socket 68 to all the servers 66 which are `listening` in to the designated Java/client socket port; col. 5, line 65 – col. 6, line 16 of Purcell];

receiving a result offer from each of said plurality of databases having data available that is responsive to said single access operation [cap application 74 puts the requested data/resultant into the object which included the query, and returns the object to the cap application 74 (Step 120). The cap application then forwards the object containing the requested data to the client 62; col. 7, lines 35 – 50 of Purcell]; and

obtaining, by said merging driver automatically without user action, an ordered result in response to said single access operation wherein said obtaining further

comprises retrieving results, by said merging driver, corresponding to said result offers from said plurality of databases in an order to obtain said ordered result [client 62 extracts the requested data from the object (Step 124), and manipulates the data as necessary in accordance with the users request or the application's needs. The client 62 then updates the record for the query to indicate that the database 72 which sent the object has responded and that the data was found in that database 72; col. 7, lines 36 – 50 of Purcell].

7. As to claim 6, this is a product claim that correspond to method claim 1; note the rejection to claim 1 above, which also meet this product claim.

8. As to claim 13, this is a system claim that correspond to method claim 1; note the rejection to claim 1 above, which also meet this system claim. As to the additional limitations, Shoji teaches a processor [CPU 604, Fig. 8; col. 15, lines 20 – 35] and a memory coupled to the processor [system memory 606, Fig. 8; col. 15, lines 20 – 35].

9. As to claim 2, Shoji teaches receiving from a user a selection of each database to be included in the plurality of databases [an application 724 to specify the databases to be searched...displaying information relating to a selected database; col. 5, lines 38 – 62].

10. As to claim 3, Shoji as modified teaches a database in the plurality of databases is a merging data source [col. 5, lines 8 – 29 of Purcell].

11. As to claim 5, Shoji teaches accessing the merging driver through a user interface API [graphic display 740, Fig. 2A; col. 4, line 64 – col. 5, line 21 of Shoji].

12. As to claims 7, 8 and 10, these are product claims that correspond to method claims 2, 3 and 5; note the rejections to claims 2, 3 and 5 above, which also meet these product claims.

13. As to claim 12, see the rejection to claim 3 above.

14. As to claims 14, 15 and 17, these are system claims that correspond to method claims 2, 3 and 5; note the rejections to claims 2, 3 and 5 above, which also meet these system claims.

CONTACT INFORMATION

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.


The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen
Examiner
Art Unit 2194

LBZ

 10/12/2007